

SCOPE OF CLAIM

1. A heat transfer cover film comprising a substrate film and an ionizing radiation-cured resin layer releasably formed on the substrate film.
2. A heat transfer cover film as claimed in Claim 1, wherein a release layer is interleaved between the substrate film and the ionizing radiation-cured resin layer.
3. A heat transfer cover film as claimed in Claim 1, wherein the ionizing radiation-cured resin layer contains a relatively large amount of transparent particles.
4. A heat transfer cover film as claimed in Claim 1, wherein the ionizing radiation-cured resin layer contains a wax, a slip agent, an ultraviolet absorber, an antioxidant and/or a fluorescent brightener.
5. A heat transfer cover film as claimed in Claim 1, wherein the ionizing radiation-cured resin layer is made of a polymer or oligomer having a radically polymerizable double bond in its molecule.
6. A heat transfer cover film as claimed in Claim 1, wherein the substrate film is provided thereon with a dye layer.
7. A heat transfer cover film comprising a substrate film and a wax-containing transparent resin layer releasably formed on the substrate film.
8. A heat transfer cover film as claimed in Claim 7, wherein a release layer is interleaved between the substrate film and the transparent resin layer.

9. A heat transfer cover film as claimed in Claim 7, wherein the transparent resin layer is formed of a mixed dispersion of the transparent resin with the wax.

10. A heat transfer cover film as claimed in Claim 7, wherein the transparent resin layer contains a wax, a slip agent, an ultraviolet absorber, an antioxidant and/or a fluorescent brightener.

11. A heat transfer cover film as claimed in Claim 7, wherein the wax content lies in the range of 0.5 to 10 parts by weight per 100 parts of resin.

12. A heat transfer cover film as claimed in Claim 7, wherein the substrate film is provided thereon with a dye layer.

13. A heat transfer cover film characterized in that a substrate film is releasably provided thereon with a silicone-modified transparent resin layer.

14. A heat transfer cover film as claimed in Claim 13, wherein a release layer is interleaved between the substrate film and the transparent resin layer.

15. A heat transfer cover film as claimed in Claim 13, wherein the transparent resin layer is provided with a heat-sensitive adhesive layer on its surface.

16. A heat transfer cover film as claimed in Claim 13, wherein the transparent resin layer contains a wax, a slip agent, an ultraviolet absorber, an antioxidant and/or a fluorescent brightener.

17. A heat transfer cover film as claimed in Claim 13, wherein the substrate film is provided thereon with a dye layer.

18. A heat transfer cover film comprising a substrate film, a transparent resin layer and a heat-sensitive adhesive layer further provided on the transparent resin layer, said heat-sensitive adhesive layer being made of a resin having a glass transition temperature lying in the range of 40 to 75°C.

19. A heat transfer cover film as claimed in Claim 18, wherein a release layer is interleaved between the substrate film and the transparent resin layer.

20. A heat transfer cover film as claimed in Claim 18, wherein the heat-sensitive adhesive is selected from the group consisting of polyvinyl chloride, polyvinyl acetate and a vinyl chloride/vinyl acetate copolymer, all having a mean polymerization degree of 50-300.

21. A heat transfer cover film as claimed in Claim 18, wherein the transparent resin layer contains a wax, a slip agent, an ultraviolet absorber, an antioxidant and/or a fluorescent brightener.

22. A heat transfer cover film as claimed in Claim 18, wherein the substrate film is provided thereon with a dye layer.

23. A heat transfer process, comprising the steps of:

overlaying (a) a dye layer of a heat transfer sheet including a substrate film having said dye layer thereon over (b) a dye-receiving layer of a heat transfer image-receiving sheet including a substrate film having said dye-receiving layer thereon in opposite relation;

applying heat to the back side of the heat transfer sheet to make an image; and

laminating a transparent protective layer on the surface of said image,

said dye layer containing a releasant, while said dye-receiving layer being releasant free or containing a releasant in such an amount as to offer no impediment to the lamination of the transparent protective layer.

24. A heat transfer process as claimed in Claim 23, wherein the lamination of the transparent protective layer is carried out in a heat transfer manner.

25. A heat transfer process as claimed in Claim 24, wherein the lamination of the transparent protective layer is carried out with the heat transfer cover film claimed in Claims 1, 7, 13 or 18.

26. A heat transfer sheet comprising a substrate sheet provided on the same surface with a first heat transfer layer comprising a thermally migratable dye and an untransferable binder and a second heat transfer layer comprising a dyed or pigmented, heat-meltable binder, the substrate sheet comprising a polyester film and at least the surface having the heat transfer layers being made easily bondable.

27. A heat transfer sheet as claimed in Claim 26, wherein the polyester film is a polyethylene terephthalate or polyethylene naphthalate film.

28. A heat transfer sheet as claimed in Claim 26, wherein the polyester film made easily bondable includes an adhesive layer drawn simultaneously with the substrate sheet.

29. A heat transfer sheet as claimed in Claim 28, wherein the adhesive layer has a thickness of 0.001 to 1 μm .

30. A heat transfer sheet as claimed in Claim 26, wherein a release protective layer is interleaved between the second heat transfer sheet and the substrate sheet.

31. A heat transfer sheet as claimed in Claim 26, wherein the second heat transfer layer is provided with a heat-sensitive adhesive layer on its surface.

32. A heat transfer sheet as claimed in Claim 26, in which the second heat transfer layer or the heat-sensitive adhesive layer formed thereon is well adhesive to a vinyl chloride base resin.

33. A heat transfer sheet as claimed in Claim 26, which is provided with a heat-resistant slip layer on its back surface.

34. A process for making cards, comprising:
Forming a gray scale image and/or non-gray scale image on the surface of a card substrate made of a vinyl chloride resin using the heat transfer sheet as claimed in Claim 26.

35. A process as claimed in Claim 34, wherein a transparent protective layer is laminated on the surface of the resulting image in a heat transfer manner.

36. A process as claimed in Claim 35, wherein the lamination of the transparent protective layer is carried out with the heat transfer sheet as claimed in any one of Claims 1, 7, 13 and 18.

37. A heat transfer cover film as claimed in Claim 2, wherein the release layer comprises a water soluble polymer.

38. A heat transfer cover film as claimed in Claim 8, wherein the release layer comprises a water soluble polymer.

39. A heat transfer cover film as claimed in Claim 14, wherein the release layer comprises a water soluble polymer.

40. A heat transfer cover film as claimed in Claim 19, wherein the release layer comprises a water soluble polymer.

41. A heat transfer cover film as claimed in Claim 30, wherein the release layer comprises a water soluble polymer.